



Date:	June 17, 2025
To:	Petra Schuetz
From:	Joe Bessman, PE
Project Reference No.:	1539
Project Name:	Coffin Butte Landfill – VNEQS Response



The purpose of this memorandum is to provide a formal response to comments within the June 10, 2025 memorandum from the Valley Neighbors for Environmental Quality and Safety (VNEQS) related to transportation. These comments were received on the Coffin Butte Landfill conditional use application for expansion south of Coffin Butte Road as part of LU-24-027. Transportation comments within the letter are summarized below and are followed by our response.

Comment 1: The applicant generally assumes that the level of future impacts will be identical to current impacts, when the actual impacts could be double. The annual limit of 1.1 million cubic yards could increase to 1.5 million in years 1-4, and to 1.86 million in years 5-6.

Response: The landfill quantities cited are entirely speculative; within the footnotes of the opposition comments on page 5 it appears that the opponents are mixing changes in total landfill area (acres) with traffic, but these metrics do not correlate. As stated, the transportation study assumed that landfill tonnage would generally follow area population growth, which is projected for the Linn-Benton Counties to remain at about 1 percent annual growth (or less), as documented within the original Transportation Impact Analysis as cited within adopted long-range plans. The traffic study acknowledges that waste levels can vary on an annual basis due to external factors, so in lieu of assessing growth through the approximately seven-year lifespan of the expansion site, accounting for minor trips to the current site, or movement of transfer vehicles between sites, we provided an analysis showing the operational impact of a 50% increase in current (measured and observed) landfill traffic volumes that was reassigned to the system based on the proposed configuration of the scales.

Correlating a 50% trip increase to a tonnage change does not provide a direct conversion for this site; the presence of transfer stations that “intercept” landfill trips results in fewer trips with larger trucks (heavier loads and higher per-vehicle tonnage) from longer distances. Some transfer stations also include solid waste compactors, which can increase tonnage within an equivalent volume. Accordingly, as the site is already a regional landfill that provides trash services for adjacent counties, any increase in tonnage would necessarily occur from longer-distance transport. A 50 percent increase in site trips (which would predominantly consist of larger transfer trucks rather than personal vehicles, dump trailers, or even garbage trucks) equates to more than double the current tonnage and would still provide a very conservative analysis. There are no current plans by Republic Services to increase its operations at the site, but operational fluctuations have occurred historically, and the site is designed to accommodate these levels.

The Benton County Talks Trash (“BCTT Report”) Solid Waste Process Workgroup Report, dated April 2023¹, provides historical data historical tonnage information broken out by contributing source. Figure 1 illustrates this trend for the Coffin Butte Landfill. This graphic and accompanying text describe the tonnage increase between 2016 and 2017 as primarily attributable to increased refuse from Washington County in an effort to extend the lifespan of the Riverbend regional landfill. This tonnage was dispersed to other landfills in 2020, resulting in the Coffin Butte tonnage reduction, with this reduction possibly also attributed to the pandemic. The 2021 tonnage increased due to area fires (note that fire and flood intake are exempt from the tonnage cap). Other factors noted by the subcommittee that could influence annual waste tonnage included recession/economic factors, societal changes in waste generation, disposal alternatives, global health issues, environmental legislation changes, and natural disasters.

Chart 3: Intake by Source, 2013 - 2021

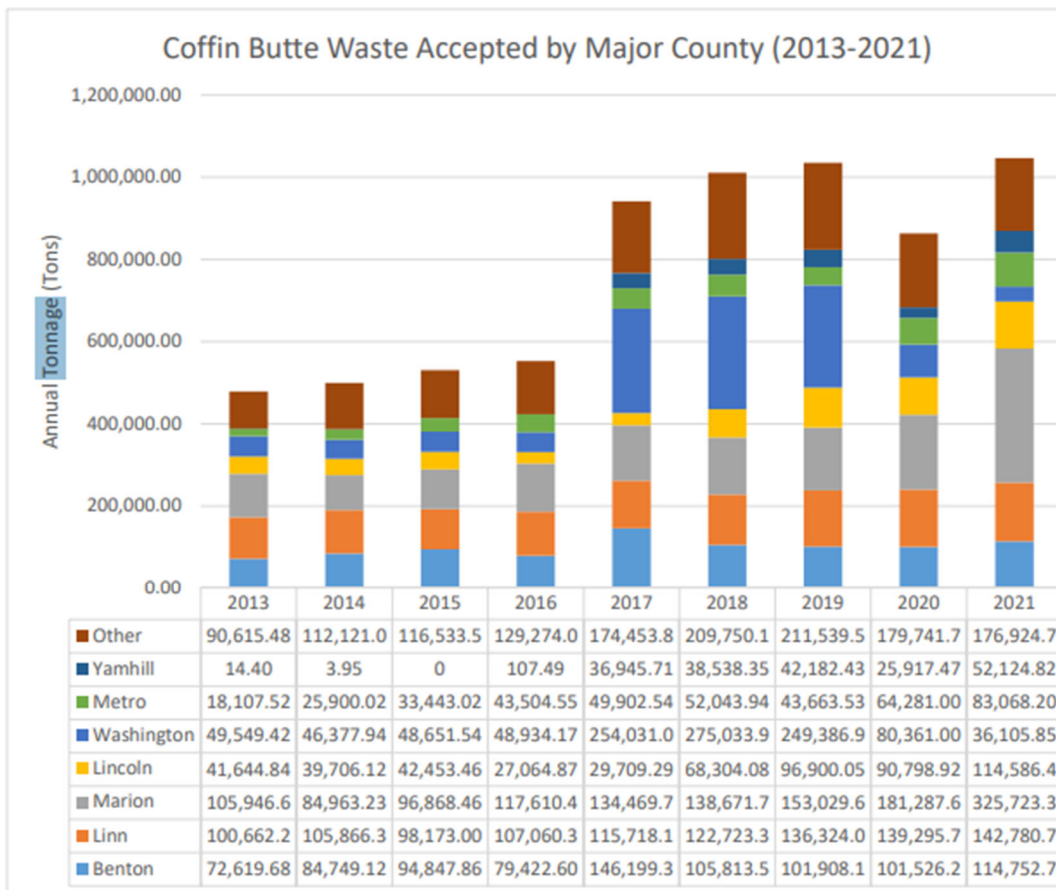


Figure 1. Total tonnage by location (includes daily top cover)

¹chrome-extension://efaidnbmninnbpcjpcglclefindmkaj/https://cd.bentoncountyor.gov/wp-content/uploads/2023/12/bctt_final_report_4-11-2023.pdf

The BCTT report also provided information on landfill lifespan. Consistent with the traffic study, this forecast was also premised on a “steady annual tonnage intake of between 1 million and 1.1 million tons for the duration of the landfill’s projected remaining site life.” (BCTT, pp 618). Accordingly, as the transportation analysis was premised on current conditions plus 50% traffic increases into the landfill (approximately equivalent to doubling the current waste tonnage using transfer stations). This scenario is more conservative than the status-quo assumptions for the Coffin Butte landfill within the BCTT report. Accordingly, no changes to the report are needed to address this comment.

Comment 2: The traffic analysis does not account for the expansion of the landfill to the former quarry site.

Response: The traffic analysis was not prepared to assess use of the former Knife River Quarry site as a landfill; the traffic study was prepared to specifically address the impact of landfill expansion to the south side of Coffin Butte Road as required to support this application. However, the lateral shift in landfill operations has no impact on public streets and is managed entirely within the Republic Services site, so the existing conditions analysis within the report would accurately describe this scenario (and conservatively also includes the Knife River operations that were occurring when the traffic counts were collected). Accordingly, no changes to the report are needed to address this comment.

Comment 3: The old landfill will not disappear; cumulative impacts should be incorporated.

Response: Limited-service trips may occur in the future to service, maintain, and monitor the current landfill site. These values could fluctuate over time and are expected to decrease but will be limited and will not change the findings or results of the analysis. No changes to the analysis were provided in response to this comment as the impacts are likely less than five peak hour trips, and more realistically between zero and two. Accordingly, no changes to the report are needed to address this comment.

Comment 4: The removal of 3.5 million cubic yards to create the new landfill is different than a typical application, with the construction work ongoing for years. This has not been accounted for.

Response: The traffic counts within the traffic study capture the adjacent Knife River rock quarry operations that were being accelerated to support use of adjacent landfill cells. While a specific construction timeline and schedule for construction of the new expansion site are not known at this time, it is expected that creating an adjacent landfill area will provide a similar level of effort as will be the case at the proposed site. As the traffic counts within the traffic study captured this activity (and even increased it by 50%), this on-going construction activity has been accounted for. No changes were provided in response to this comment.

Comment 5: Transporting all the materials from the new landfill site across Coffin Butte Road will require ~270,000 one-way trips in a standard dump truck.

Response: The specific method of hauling material has not been finalized, but it will most likely occur using larger construction vehicles (scrapers or large dump trucks) within a Benton-County approved traffic-control plan. Some of the materials can be used for landfill liners, other material will likely be hauled off-site for fill on other projects. The specific quantities that will remain on-site or hauled to adjacent lands or further off-site are not yet known.

Comment 6: No standard ITE trip generation data is available for landfills, opponents disagree with “non-approved” trip generation approach.

Response: The ITE Trip Generation manual is a useful reference for a broad range of land uses but has limited applicability outside of urban and suburban uses. As most county transportation engineering staff can attest, rural uses tend to be highly variable on a seasonal basis, and travel patterns also vary with the surrounding population served, number of on-site [seasonal and permanent] employees, or material quantities processed. This is the case not just with landfills, but also with quarries, timberyards/operations, farming, and agricultural operations, which have a high variability even between sites within a localized area.

The ITE Trip Generation Manual and its accompanying reference manuals are not silent on how to treat uses that are not directly included, and there are numerous traffic studies of other landfill sites across the US that also provide useful information on landfill operations (as summarized in the traffic report). The ITE Trip Generation Manual directly recommends that engineers collect and obtain local data even for uses that are included in the manual. There is no better comparative site than the existing Coffin Butte landfill, and the data collection at the site over the course of several years, including the recent April 2025 data collection at the Coffin Butte landfill entrance spanning from 7:00 a.m. to 9:00 p.m. provides strong evidence of its current and prior operations and travel characteristics.

Opponent arguments appear to disagree with growth rates applied to the current rates rather than the existing operations of the site, stating that as a regional landfill (“import landfill”) trips should correlate to “import area”. As previously discussed, and addressed, as waste is transferred from further locations and transfer stations the fleet mix changes, with a lower total volume of higher-capacity trucks transferring an increasing proportion of the tonnage. This substantially reduces the number of trips per ton compared to the use of personal vehicles, dump trailers, or even commercial garbage trucks. This matches the findings of the Twin Creeks Landfill Expansion Report prepared by HDR in 2016 that was referenced within the Traffic Impact Analysis.

Comment 7: The traffic study does not account for cross-traffic on Coffin Butte Road for site preparation activities.

Response: As is common in all traffic studies, the report was prepared to assess operational conditions when the landfill construction is complete. Construction conditions will be less intense on the site than its operation as a landfill, as evidenced by the existing traffic counts at the former Knife River site entrance that demonstrate an accelerated level of activity required to prepare a landfill site. The duration of this “construction period” will be similar to the “existing conditions” included in the report, which are well within Benton County standards. For clarity, this will include the following:

- No change in current travel and access to the Coffin Butte scales
- Similar construction activity as the prior Knife River operations

The traffic study accounts for these characteristics, so no changes are needed to the report.

Comment 8: The traffic study does not account for cross traffic on Coffin Butte Road resulting from traffic design and site preparation. The traffic levels effectively privatize the road and will impede emergency use.

Response: This argument again posits that the site does not account for the preparation of the landfill expansion area, its concurrent use as a landfill, and its suitability to allow emergency ingress/egress while landfill activity doubles.

- Doubling the landfill tonnage at Coffin Butte is not anticipated or planned. The traffic study shows that conservatively increasing the current number of vehicles entering and exiting the landfill by 50% (approximately equivalent to doubling the tonnage) can readily comply with Benton County standards.
- Maintaining use of the existing scales provides an extensive (over quarter-mile) queuing area for vehicles so that back-ups along Coffin Butte Road are avoided. This not only maintains the road clear of blockages for public trips, cyclists, fire and emergency use, but this also simplifies the traffic plan for private users that will not have to modify their haul route.
- The proposal includes reconstruction of Coffin Butte Road within the impacted area, bringing this segment into compliance with Benton County’s standards for the roadways freight and collector designations. The voluntary condition to install a new westbound left-turn lane with extensive storage area into the landfill expansion site also prevents queues and back-ups at this new access point.

As provided in the application materials, the levels of traffic on Coffin Butte Road remain well within *Rural Collector* levels, and the elevated volume of trucks associated with a regional landfill (and adjacent quarry site) remain consistent with the *Freight Route* designation of this road. Through travel will continue to occur nearly unimpeded, similar to its current conditions with the new turn lanes.

In terms of the additional “what if” scenarios cited (such as wildfires, earthquakes, etc.) it is noted that these are not included within Benton County’s transportation analysis criteria and are addressed in other portions of the application. It should be noted that the transportation improvements presented, and the lack of traffic control for through movements, will continue to enable emergency service providers and the public unrestricted and unimpeded use of Coffin Butte Road. There is no evidence that indicates conditions will in any way impede public or emergency travel along Coffin Butte Road.

Comment 9: Traffic will seriously interfere with uses on adjacent property by impeding traffic flow.

Response: There is no evidence indicating that through traffic will experience any additional delays. With the maintenance of the existing scales that provide extensive on-site queue storage, and the proposed addition of a westbound left-turn lane into the new landfill area, through traffic will continue to flow unimpeded. There is no evidence that indicates conditions will in any way impede public or emergency travel along Coffin Butte Road.

Comment 10: Degradation of Level of Service is an undue burden.

Response: Traffic operations show that conditions will remain well within Benton County standards, which is the only applicable criteria. The opposition’s argument that side-street (north-south) delay for vehicles exiting the scales or landfill and turning left or right from a stop sign will provide a public burden is baseless. The minor increase from LOS “A” to LOS “B” only impacts landfill customers/employees. There is no control delay for through motorists on Coffin Butte Road (Level of Service “A”), and no evidence of impacts let alone an “undue burden.”

Comment 11: Degradation of roadway structural section due to truck traffic creates an “undue burden”.

Response: Both Highway 99W and Coffin Butte Road are designated as higher-order streets and as freight routes. The required improvements to Coffin Butte Road will be constructed to an increased standard in recognition of the increased bearing needs of the pavement’s structural section. The widening for bicycle lanes also places these heavy vehicles further from the road edge which improves lateral support, reduces

edge stresses and deflections, and avoids pavement edge drop-off. The mitigation provided with this project extends beyond the lifespan of the landfill expansion site.

Comment 12: An undue burden will occur due to road congestion and EMS response to traffic accidents due to increased semi-truck traffic.

Response: There is no evidence that would indicate reconstruction of Coffin Butte Road to Benton County standards, including the voluntary addition of a new westbound left-turn lane and widening for bicycle lanes (shoulders) would increase safety risks. The proposed access point to the new landfill expansion site provides extensive sight lines that comply with AASHTO recommendations. No safety deficiencies were noted in the report or with the preliminary turn lane layout. The presence of trucks on designated freight routes is neither an undue public burden or a public safety issue.

SUMMARY AND CONCLUSIONS

I appreciate the opportunity to provide this supplemental information to help address comments and concerns raised by neighbors and surrounding community members. In addition to these responses, I would further note that ODOT and Benton County transportation engineering staff have also reviewed the transportation materials and agree with the study approach (as provided within the scoping materials), the provided findings, and recommended mitigation measures to address the transportation system impacts. Benton County's findings are provided in the staff report, and ODOT comments have been obtained and also submitted into the record.

As previously stated, the transportation plan has been substantially modified from the prior application to incorporate the public and agency comments and feedback received. The application now avoids impacts to Tampico Road, provides mitigation for its impacts to Coffin Butte Road, retains the unimpeded through function of Coffin Butte Road as a *Collector* and *Freight Route*, and maintains the weigh scales at a location with extensive queuing capacity (over ¼ mile).

If you have any questions I can be reached at joe@transightconsulting.com or at (503) 997-4473.